IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 2 Issue 10, October 2015.
www.ijiset.com
ISSN 2348 – 7968

Pinch Point Management Program

Tinu Joseph Thomas[1] and Dr. Nehal A. Siddique[2]

[1] Health, Safety, Environment, University of Petroleum and Energy Studies, Dehradun, India

[2] Health, Safety, Environment, University of Petroleum and Energy Studies, Dehradun, India

Abstract

Within the drilling industry, all and sundry knows the cost of hands and fingers. It's not just about equipment damage and production loss, but it's all about human life!

We strongly believe that overall operational excellence can be achieved only with HSE commitment; hence as part of implementation of Pinch Point Management program, we have selected a pilot rig and conducted an Awareness campaign involving rig crew.

The 27 bones that make up the wrist and hand are some of the hardest working and most complex in the human body. Think about how different the daily activities we all take for granted would be without them. Hands are the perfect tool for opening jars or typing emails. They're ideally suited to sealing a deal or saying hello. And hands are also the perfect instruments to help emphasize a point or express emotions. While our hand's functional importance is obvious, the obstacles and hazards we're exposed to everyday that threaten to impede that function aren't always as readily apparent.

The management of pinch point is developed through dividing the rig into different zones and identifying the potential pinch points through a survey and workshop. Then the baseline "Pinch Point Register" is developed with photographs and updated from time to time once hazards are identified and marked periodically. Key personnel are designated for said areas. The program was supported through campaigns and trainings on Hands & Fingers Injury Prevention.

1. Introduction

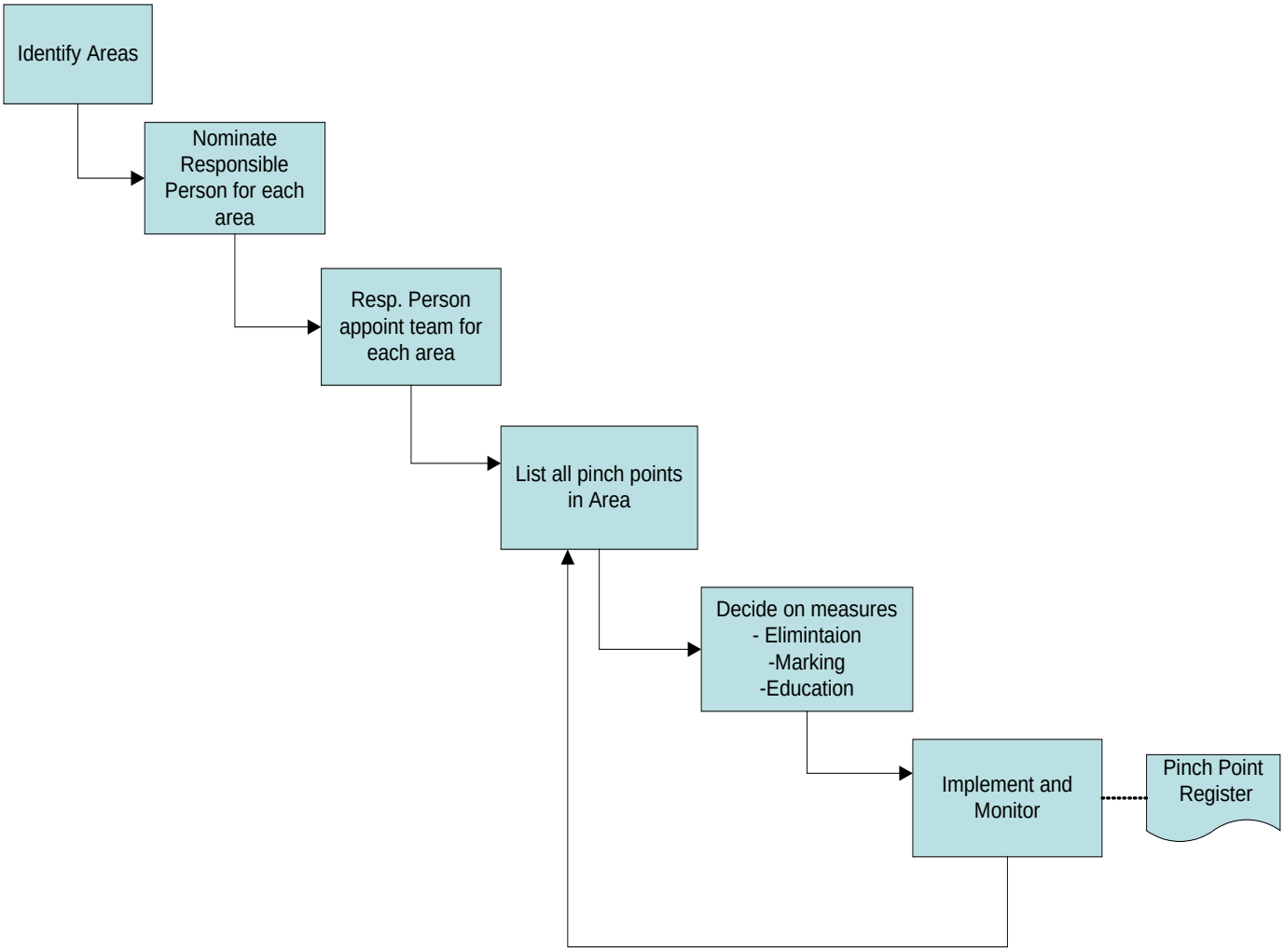
So, what can we do to help make hand safety a priority to our workforce?

The objective of the project is to control the Pinch point hazards by the administrative control measures. Considering the potentiality of Pinch point incidents and the severity that it could create, we are focusing on pro-active measures to prevent such incidents in Development Drilling & Work over Team-III Rigs. Hazard Recognition, Look out for pinch points, Recognize pinch point hazards, Know how to prevent pinch point injuries.

No spare parts for Hands and Fingers.

ISSN 2348 – 7968

2. Project Methodology



ISSN 2348 – 7968

3. Pinch Point Management Program Action Plan

Detailed survey of Pinch points was conducted at the Rig and camp. The overall rig was divided into 7 sections.

1. The power system
2. The hoisting system
3. The circulating system
4. The rotary system
5. The well control system
6. Heavy Equipment
7. Accommodation camps

The details are taken by physical observation. The surveying team members are

1. Toolpusher of Rig
2. Driller of Rig
3. Asst. Driller of Rig
4. Derrickman of Rig
5. Chief Mechanic of Rig
6. Chief Electrician of Rig
7. Safety officer of Rig
8. Drilling Supervisor of Rig
9. HSE Engineer
10. HSE Supervisor
11. Camp Boss of Rig

Methodology

Methodology used for survey was the whole rig was divided into **different sections**. Each area is then inspected in detail and recorded in the Pinch Point Register. Then a workshop was carried out to finalize.

Beyond Just a Pinch

A pinch point is anywhere a part of the body is caught between two objects. But it's much more than just slamming your finger in a door or getting your foot stuck in a floor grate. It could be a worker getting her hand crushed in a piece of machinery or an employee being crushed between a building and a vehicle. These types of accidents can result in fractures, amputations, and even death. In 2011, pinch point accidents were the seventh most common cause of disabling injury, according to the 2011 Liberty Mutual Workplace Safety Index. California alone reports approximately 125,000 pinch point injuries each year.

4. Implementation

We have selected a pilot rig and conducted an Awareness campaign on Hands & Fingers Injury Prevention involving Contractor crew.

Then had clearly identified pinch points by painting the hazards in yellow and black color or placing stickers at each potential pinch point, so that everyone is responsible for being aware of the hazards around them. Please find enclosed the baseline "Pinch Point Register" with photographs developed based on the Pinch Point Management Program and shall be updated from time to time once hazards are identified and marked.

Split Bushing is the area while handling someone can get injured. Pinch point painted in yellow and Black

ISSN 2348 – 7968

Casing Tongs- while handling tongs someone can get injured. Pinch point painted in yellow and Black

5. Training and Campaign

Another important part of building hand safety awareness is to maintain accountability. Make the workforce understand that it's not only important to watch out for themselves, but for each other as well. Show them the obvious costs associated with treating and preventing hand injuries, and make them aware of the not-so-obvious costs, like loss of productivity or increased workloads due to coworkers on medical leave. The idea is to make it personal for them and to show the impact one person can have on an entire group.

While hand injuries are only one of many potential workplace hazards employees encounter each day, they are also one of the most common. However, it only takes a little foresight and preparation to make an impact and keep people safe.

Awareness Training was given to Tool Pusher, Driller, Asst. Driller, Derrickman, Mechanic, Electrician and Safety Officer for conducting the survey and responsibilities for hunting Pinch Point hazards were also distributed. Preparation of Pinch Point Register was done by educating crew with the help of Campaign on Pinch Point Management. Crew was taken to the location and explained in detail about the **Pinch Point Hazards**.

6. Review for Continual Improvement

The effectiveness in implementation of Pinch Point Management Program was reviewed for continual improvement. As per the plan, the review was planned in the end of each quarter. During reviewing effectiveness in implementation of Pinch Point Management Program, the following were noted.

The baseline "Pinch Point Register" with photographs developed based on the Pinch Point Management Program shall be updated from time to time once hazards are identified and marked.

Considering the climate of Kuwait frequently painting the hazards in yellow and black color is required.

7. Application of Pinch Point Management Program in Other Fields

When we look back the history of past incidents, it is clear that it is not only affecting drilling operations, it is affecting other activities also. Hence the Pinch Point hazard to be controlled and necessary measures to be taken.

The same methodology with slight difference can be applied in any field. The survey can be done in the same way. The area can be divided in the same manner. The Pinch Point Register required to be developed for the specific area and activity.

Pinch Point Management Program can be used at

1. Construction worksites where process plant construction, high rise buildings, etc.

ISSN 2348 – 7968

2. Maintenance and shut down activities of process plants.
3. Offshore platforms, where the impact of the dropped object is even considered for the platform design.
4. Material handling and lifting operations.
5. Line assembly manufacturing facility.

Hence this can be implemented in other groups as a pro-active measure.

8. Benefits of Pinch Point Management Program

The approach adopted here is a proactive action. There were no Pinch Point incidents reported in the rigs we adopted Pinch Point Management Program. But with time, chances for Pinch Point incidents are more. As a business leader, Pinch Point Management Program benefits our company and our Business Partners employees to find ways to decrease these types of accidents. Not only can injuries cost our business money due to workers' compensation and medical bills, we'll also lose profits due to a drop in productivity, morale, and employee engagement. That can add up to some big loses from a relatively easy problem to prevent. Providing safety training on Pinch Point Management Program at Rig equipment and then holding employees and supervisors accountable for following safety procedures will go a long way toward protecting employees and our business. Encouraging employees to communicate safety concerns and near-misses related to Pinch Point will also help us avoid accidents before they happen.

While most leaders probably aren't passionate about workers' comp or workplace safety, every leader should be zealous about their employee's productivity and engagement, as well as the success of the company. And, since all those things are tied to workplace safety, doing our due diligence to ensure pinch point injuries are minimized will go a long way to helping us meet our production and workforce goals.

The key benefits are

The Risk is managed by administrative control. Exposure of the crew to Pinch point area has brought to ALARP level by marking Pinch Points in Yellow and Black.

Risk = Likelihood of occurrence X Severity

Through the implementation of Pinch Point Management Program, by marking Pinch Points in Yellow and Black we are reducing the likelihood of occurrence of injury.

Increased Pinch Point knowledge and awareness of crew.

By preparing a Pinch Point Register we are ensuring whether all the pinch points are identified and marked properly.

This will be referred as a master document for new employees Induction or green hand program or Short Service commission.

9. Cost Implication

Cost implication is negligibly low. Through proper utilization of the existing manpower and educating them, Pinch Point Management Program was implemented. The only cost incurred was for the paint used for marking the identified zone, which is very negligible amount.

References

[1] OSHA 3170-02R 2007.
[2] IADC Health, Safety and Environmental Case Guidelines for Land Drilling Units